CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM
NO. R6V-2004-0034A2 (PROPOSED)
WDID NO. 6B360303001

FOR
PACIFIC GAS AND ELECTRIC COMPANY
INTERIM PLUME CONTAINMENT AND HEXAVALENT CHROMIUM
TREATMENT PROJECT

San Bernardino County

[Revise as follows:]

I. MONITORING

   A. Flow and Extracted Groundwater

[Replace monitoring requirement I.A.2 with the following:]

   2. Water Applied to the Land Treatment Unit (LTU)

      Samples of combined extracted groundwater shall be collected quarterly and analyzed for total chromium Cr(T), hexavalent chromium Cr(VI), nitrate (as nitrogen), and total dissolved solids (TDS). When extracted groundwater from property located southwest of the Facility is applied to the LTU, dissolved manganese (Mn), and dissolved iron (Fe) shall be analyzed. The results of sampling shall be reported quarterly.

   B. Detection Monitoring

[The following components of the detection monitoring program in MRP No. R6V-2004-0034A1 are changed:]

   2. Unsaturated (Vadose) Zone Monitoring System

      Sixteen lysimeter stations shall be installed and operational in the eight irrigated fields prior to the initial discharges under this Order. Each station consists of lysimeters at five- and twenty-feet below ground surface (bgs). Lysimeters must be capable of extracting soil pore liquid under unsaturated soil conditions.

Quarterly, soil pore liquid samples, if sufficient quantity is encountered, shall be collected from the lysimeters at five feet bgs for Cr(T) and Cr(VI) analyses and at twenty feet bgs for nitrate and TDS.

If less than 80 percent of lysimeters are operational in any one quarter, the Discharger must provide a plan and schedule to investigate, repair or replace non-operational lysimeters before the next quarterly sampling event.

3. <u>Soil Monitoring for Soil Loading of Chromium</u>

The soil monitoring frequency is changed from quarterly to annual based on monitoring data over five years showing no appreciable levels of chromium loading in soil. All other aspects of the soil monitoring program remain the same as in MRP No. R6V-2004-0034A1.

4. <u>Groundwater Monitoring for Groundwater Quality</u>

Quarterly, groundwater samples will be collected at the following fourteen monitoring locations for Cr(T), Cr(VI), nitrate (as N), and TDS analyses:

Well ID#	Location
DW-02	Downgradient DVD
MW-21B/B1	DVD
MW-29	DVD
MW-30B1/B2	DVD
MW-31	DVD
MW-32B1/B2	Cross gradient DVD
MW-42B1/B2	Upgradient DVD
MW-43	DVD
MW-50B	Cross gradient off site
MW-62A/B	Downgradient DVD
MW-63	Downgradient DVD
MW-68S/D	Downgradient DVD
MW-69S/D	Downgradient DVD
New shallow and deep well pair north of MW-63	Downgradient off-site

5. Aquifer Characteristics

   Include a discussion as to whether the groundwater capture zone completely extends to all irrigation fields comprising the land treatment unit. If the capture zone does not completely extend to all irrigation fields, state measures or actions to be taken to achieve full capture of groundwater beneath irrigation fields. All other aspects of the aquifer characteristics monitoring program remain the same as in MRP No. R6V-2004-0034A1.

7. Summary

Sampling Frequency for Detection Monitoring

Monitoring	Frequency
Site Monitoring	Daily
Unsaturated Zone Monitoring	Quarterly
Soil Monitoring	Annual
Groundwater Monitoring	Quarterly
Plant Tissue Monitoring	Semi-Annually
Aquifer Characteristics	Quarterly

Note: Results shall be reported quarterly

III. REPORTING REQUIREMENTS

   A. Scheduled Reports to be Filed with the Water Board

      Detection Monitoring Reports

[The following addition is made to the detection monitoring program in MRP No. R6V-2004-0034A1:]

   5. The table containing analytical results for groundwater monitoring wells shall show the range and average concentrations of Cr(T), Cr(VI), nitrate (as N), and TDS from all required groundwater monitoring wells for that quarter and over the previous 12 months.

Ordered by: _____ Dated: _____
                    HAROLD J. SINGER
                    EXECUTIVE OFFICER